

KEYS Project

Keep Encouraging Young-Driver Safety
Homework for
Teens and Parents in Driver Ed

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Project Genesis

- Scope of teen driver challenge
- GDL
- NICHD Check Points
 - Get info to parents through license process
- Montana volunteered for follow-up research
- Montana Parent survey
- Complications = create own program
 - KEYS Project

Combining Countermeasures to Help Combat High Crash Rates

- Graduated driver licensing (GDL)
- State adoption reduces teen crash rates by 20-40%
- Driver education (DE)
 - Mixed results
 - May increase crash risk when teens drive at earlier ages
 - Texas & Oregon—teens who take DE crash less than those who do not take DE
- Parenting


Parenting & Teen Driving

- Parents are involved in teen driving from the beginning
- Parent involvement is related inversely to youth driving risk
 - Teen risky driving behaviors, traffic violations, & crashes are 2-7 times less likely with high levels of parent monitoring & parent limits on teen driving
- Parents tend to underestimate driving risks for their teens and do not supervise teen driving well
- Parents need better education & guidance to support young driver safety

Theory Foundations and Sources

- #1: Research on the Checkpoints Program, a persuasive educational program for parents to increase management of teen independent driving
- #2: Research on the Hoover-Dempsey/Sandler Model of Parent Motivation
- #3: Community-based initiatives are “better”
- #4: Montana Parent Survey – want information from their driver education teacher

5 KEYS Strategies

- #1: Target parents in programmatic efforts
 - #2: Promote high initial parent expectations
 - #3: Expose parents to goal-oriented persuasion
 - #4: Clearly define parent roles & responsibilities & invite parents to participate
 - #5: Define parent as practice supervisor, not driving teacher
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- Three sets of concentric circles, resembling ripples in water, are located in the bottom right corner of the slide. They are light blue and fade out towards the bottom edge.

~~Parent~~ Teen homework assignments”

- To get parents involved in driver education
- To distribute information to parents on young driver safety
- To be consistent with the evidence-based strategies to increase parent involvement
- To be consistent with identified parent preferences for involvement in DE in Montana

Understand the Road to Safe Driving



<i>Phases for Learning to Drive</i>	<i>DESCRIPTION</i>						
	<i>GDL Phase</i>	<i>Knowledge</i>	<i>Skill</i>	<i>Performance</i>	<i>Adaptability</i>	<i>Distractions</i>	<i>Supervised Practice</i>
Novice (Beginner)	Driver's Education & supervised practice	Shows weak knowledge retrieval related to safely navigating roadways & interacting with other roadway users	Shows weak driving skills in safely navigating roadways & interacting with other roadway users	Shows very inconsistent driver performance in safely navigating roadways & interacting with other roadway users	Must use full concentration to safely navigate roadways & interact with other roadway users	Is easily distracted by both internal & external distractions	Practice is the only way to eventually gain mastery. It takes years of regular driving to become a competent driver. Meanwhile, novices MUST have regular supervised practice in order to assess progress toward safe driving & have any mistakes corrected before they become unsafe habits.
Nearing Proficient (Advanced Beginner)	Supervised practice & restricted independent driving	Shows improved knowledge retrieval related to safely navigating roadways & interacting with other roadway users	Shows improved driving skills in safely navigating roadways & interacting with other roadway users	Shows inconsistent driver performance in safely navigating roadways & interacting with other roadway users	Uses conscious effort to safely navigate roadways & interact with other roadway users	Is easily distracted by both internal & external distractions	Practice is the only way to eventually gain mastery. It takes years of regular driving to become a competent driver. Meanwhile, supervised practice is necessary in order to assess progress toward safe driving & have any mistakes corrected before they become unsafe habits.
Proficient (Nearing competent)	Restricted independent driving & full privilege license	Shows adequate knowledge retrieval related to safely navigating roadways & interacting with other roadway users	Shows adequate driving skills in safely navigating roadways & interacting with other roadway users	Shows more consistent driver performance in safely navigating roadways & interacting with other roadway users	Uses conscious effort to safely navigate roadways & interact with other roadway users	Can be distracted by both internal & external distractions	Practice is the only way to eventually gain mastery. It takes years of regular driving to become a competent driver. Periodically "spot check" to make sure that safe driving behaviors are maintained & unsafe driving behaviors are extinguished.
Competent	Full privilege license	Shows strong knowledge retrieval related to safely navigating roadways & interacting with other roadway users	Shows strong driving skills in safely navigating roadways & interacting with other roadway users	Shows consistent driver performance in safely navigating roadways & interacting with other roadway users	Behaviors to safely navigate roadways & interact with other roadway users are automatic	Less likely to be distracted by both internal & external distractions	Practice is the only way to eventually gain mastery. It takes years of regular driving to become a competent driver. Periodically "spot check" to make sure that safe driving behaviors are maintained & unsafe driving behaviors are extinguished.



Parent-Teen Homework Assignments to Increase Driver Safety

List of Homework Assignments & Comments About Them

Homework Assignments	Montana parents said...	Driver Ed instructors said...
#1 SAFETY PRECAUTIONS & SAFETY EQUIPMENT 1.1 Vehicle-Related Activity: Vehicle Tasks. 1.2 Vehicle-Related Activity: Vehicle Adjustments. 1.3 Vehicle-Related Activity: Vehicle Controls. 1.4 Family Exercise: Rapid Fire Commands.	<ul style="list-style-type: none"> "I got into the emergency planning part. Good to have before it's needed." "Good, helpful, simple." "I forgot how automatically I do things. Explaining is more difficult than doing." "All of these things are important for teaching her to be a safe and competent driver." "Fun + interesting." "After the exercise my son realized how important it was to know where everything was." 	<ul style="list-style-type: none"> "It creates good habits." "Student/parent collaboration is evident by the comments provided from parents." "[Parent] comments indicated it was a good opportunity to see what their student knew." "All students/parents in my 2009 summer class completed [it]." "Parents liked this activity." "Fun learning, positive interactions."
#2 TRAFFIC LAWS & COURTEOUS DRIVING 2.1 Family Exercise: Do You Know Your Signs? 2.2 Driving Activity: Signs. 2.3 Family Discussion: Traffic Laws. 2.4 Family Discussion: Courteous Driving. 2.5 Driving Activity: Driver Communication	<ul style="list-style-type: none"> "Good activities that brought out good questions." "This was a good activity for new and old drivers alike." "Both parents participated & had fun." "[This] was easy to do on [the] way to school." "Good opportunity to discuss safe driving." "Family bonding w/ teenager [is] always a plus." "Brought a greater knowledge of courteous driving." 	<ul style="list-style-type: none"> "Parents/teens enjoyed this." "Good discussion leads." "It should help new drivers a lot." "Great activity for kids & parents." "Parents were able to easily follow the lesson." "Some students knew their signs better than their parents!"
#3 VISION, BALANCE, & JUDGMENT 3.1 Family Discussion: Vision, Balance, & Judgment. 3.2 Family Exercise: Driving Pictures. 3.3 Driving Activity: Curves, Hillcrests, & Intersections. 3.4 Driving Activity: Speed Control & Lane Position.	<ul style="list-style-type: none"> "Great learning tool!" "Good things to check for and be aware of not only for kids but parents as well." "These were a bit more difficult, but very helpful!" "Good skill building." "Helped show the importance of always watching around you for hazards." "Great way for me to measure his readiness to drive." "We continue to do these exercises each time we drive." 	<ul style="list-style-type: none"> "Great info." "Nice reminders for parents." "Good examples." "Easily understood by parents/teens." "Easily performed by student/parent." "Great activity, very helpful."
#4 ADVERSE DRIVING CONDITIONS 4.1 Family Discussion: Adverse Driving Conditions. 4.2 Family Exercise: Driving Pictures. 4.3 Family Exercise: Vehicle Safety Kits. 4.4 Driving Activity: Driving Conditions.	<ul style="list-style-type: none"> "Important to safe driving." "Provides a good focus." "I think all these activities are great. We've really enjoyed the conversations." "Good practical learning." "Made my son more aware of his town and way around." "I would have felt more prepared as a teenage driver if this had been available to me." 	<ul style="list-style-type: none"> "This should make parents aware of teen experience and lack of it." "Easily understood." "Positive feedback [from families]." "Fun, clear." "Good activity." "Specific responsibilities clear."
#5 CONTINUED SAFE DRIVING & SUPERVISED PRACTICE 5.1 Family Discussion: Unsafe Driving. 5.2 Family Exercise: Parent-Teen Agreement for Safe Driving Expectations. 5.3 Family Exercise: Keep Track of Driver Progress: First Assessment. 5.4 Family Exercise: Schedule for Supervised Driving.	<ul style="list-style-type: none"> "All this helps kids + parents stay on track." "Makes driving together not rushed & less stressful." "Good way to track his improvement." "Makes my expectations clear." "Takes time but worth it." "Nice way to set-up rules for driving - instead of just letting them drive w/ no rules or consequences." "Good to see progress & to see where they need to go." 	<ul style="list-style-type: none"> "Good review." "Those parents that actually worked through this felt it was very relevant." "Good discussion points listed." "General [family] comments indicated that parents were discussing this information and how it tied back to the previous four lessons." "Good parent information." "The tie-in to GDL and how to make this step work appeared to be appreciated by parents."

Parents' time is ALWAYS limited, but it's only a 5-week commitment and the effects could last a lifetime!

Parent Willingness to Complete Parent-Teen Homework Assignments
in Driver Education: Promising Results from the Montana KEYS Pilot Study

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Abstract

This pilot study assessed family support for integrating parent-teen homework assignments into the Montana driver education curriculum. Homework assignments were tested within four driver education classes across the state. After completing each homework assignment, parents completed a one-page evaluation form. Of the 75 families (81%) who agreed to participate, 90% or more of parents reported “medium” or “high” willingness to complete all activities across the five homework assignments. The overwhelming majority of qualitative feedback was positive; the minimal negative feedback related mostly to parents’ limited time. Exposure to the tenets of goal-oriented persuasion and parent motivation in education that were incorporated into homework assignments was highly predictive of parent willingness. These findings are promising, but the next step would be to conduct an efficacy trial in a broader audience to determine whether completion of parent-teen homework assignments is related to short-term and prospective outcomes related to safe teen driving.

Table 1. Completion Rates for all Activities within Parent-Teen Homework Assignments

Schools	Assignment #1		Assignment #2		Assignment #3		Assignment #4		Assignment #5	
	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%
School A	9/13	68	9/13	68	10/13	77	11/13	85	13/13	100
School B	18/19	95	18/19	95	19/19	100	18/19	95	0/19	0
School C	26/27	96	22/27	81	22/27	81	26/27	96	23/27	85
School D	15/16	94	11/16	69	12/16	75	8/16	50	7/16	44
Total	68/75	88	60/75	78	63/75	83	63/75	82	43/75	57

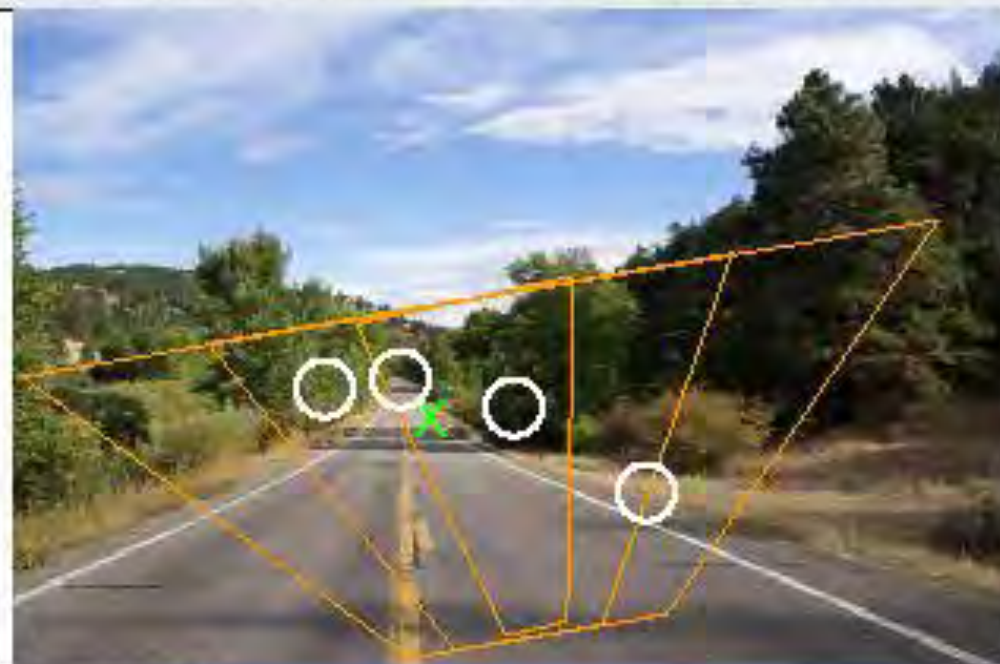
Note: Schools B and C used a different recruitment strategy than did Schools A and D; School B did not obtain family evaluation forms for Assignment #5

The Montana KEYS research report can be found at:
http://www.mdt.mt.gov/research/docs/research_proj/keys/final_report.pdf

Parent-Teen Activity #3: Driving Pictures



Driving Situation. For each picture, (1) put an "X" on the "target" you would use for driving, (2) draw in the driver's central, side/fringe, & peripheral vision ranges, & (3) circle all the possible issues with line-of-sight & path-of-travel.



Evaluation. For each picture, (1) list 3 issues for driving in the scene, & then list (2) the best speed control option & (3) the best lane position option for each.

Issue 1:

View cut off from hill up ahead

Issue 2:

Animals could dart out on the road

Issue 3:

Narrow, soft shoulders

Speed control option: **Keep the same speed but prepare to brake if necessary**

Lane position option: **1**



Issue 1:

Issue 2:

Issue 3:

Parent-Teen Activity #4: Driving Pictures



Driving Conditions

Time of day

1. early in morning
2. bright sun/glare
3. late in afternoon
4. nighttime

Weather conditions

5. rain
6. snow/ice on road
7. black ice

Road conditions

8. intersection
9. hill crest
10. curve in road
11. no street lights
12. no painted lane lines
13. overpasses or bridges
14. unusable or unforgiving shoulders
15. steep dropoffs on side of road

Traffic conditions

16. tailgating
17. heavy traffic
18. oncoming traffic
19. pedestrians
20. motorcyclists
21. bicyclists
22. animals

Obstructions to sight

Driving Situation. Using the 29 driving condition to the left, number all the driving conditions that you can find in each picture. Write the numbers for the conditions you find directly on the conditions in each picture. Note: Not all numbered conditions will be found on each picture.



Evaluation. For each picture, (1) list the 3 most problem conditions & then the best (1) speed control option & (2) lane position option.

Condition 1:

Pedestrians

Condition 2:

Limited vision by curve/hill in road

Condition 3:

Parked cars

Speed control option: **Slow/stop with foot on brake**

Lane control option: **1**

Photo courtesy of AAA Foundation for Traffic Safety

Condition 1:

Condition 2:

Condition 3:



Parent-Teen Activity #2: Do You Know Your Signs?

1.	2.	3.	4.	5.	6.
7.	8.	9.	10.	11.	12.
13.	14.	15.	16.	17.	18.
19.	20.	21.	22.	23.	24.
25.	26.	27.	28.	29.	30.

Questions?

Visit Montana GDL web page:

<http://www.opi.mt.gov/Programs/DriverEd/GDL.html>

